

Modification to an Underground Fire Line

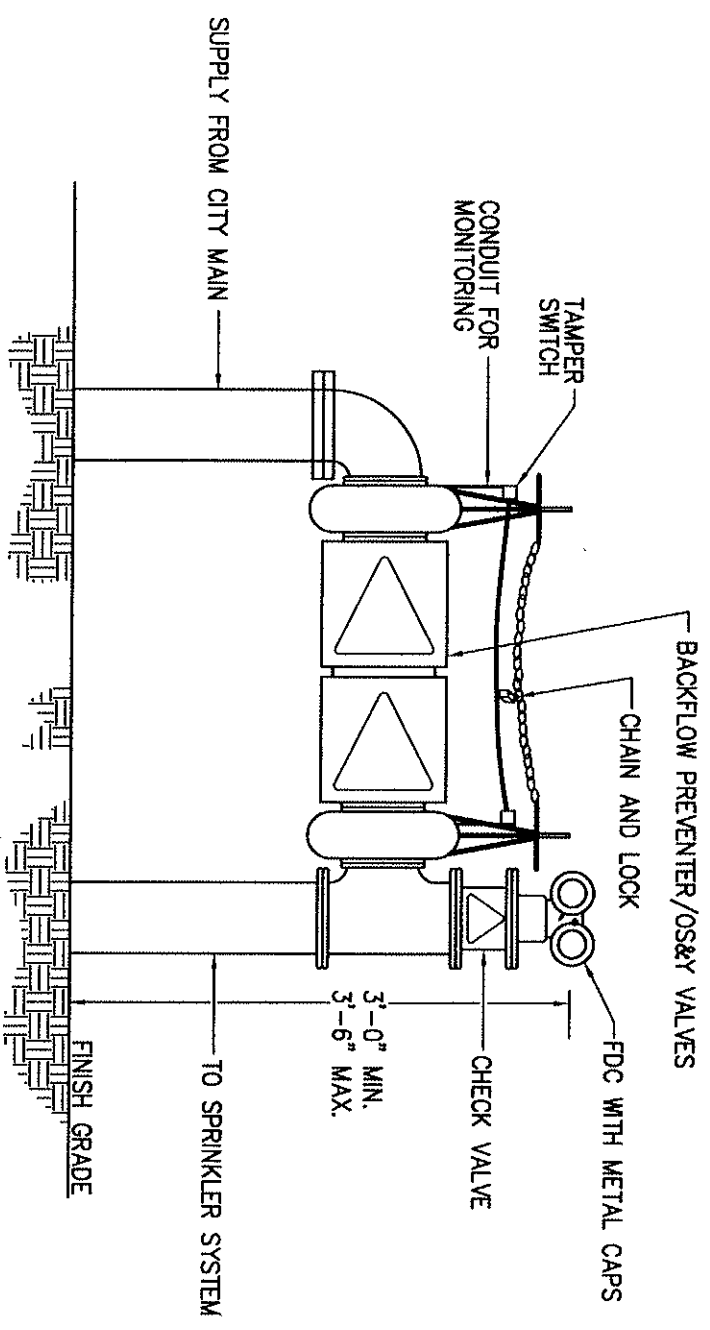
(Backflow preventor Installation or Replacement)

When a modification to an underground fire line is required due to the installation or replacement of a backflow preventor the Fairfield Building and Fire Safety Division will require the following:

1. A permit issued by the Building and Fire Safety Division for the modification to an underground fire line shall be obtained prior to starting any work on the underground fire line or the fire protection system it serves. The minimum base permit fee will be \$125.00 and include a material submittal review and the flushing inspection. If a review of hydraulic calculations is needed or additional site inspections are required they will be conducted at a rate of \$125.00/hour.
2. Provide a manufacturer cut sheet for the backflow preventor or check valve being replaced and the new backflow preventor being installed. A graph showing friction loss per GPM (gallons per minute) for each device will be required.
3. A hydraulic calculation shall be done if in the opinion of the Fairfield Building and Fire Safety Division the new replacement device will have an adverse effect on the performance of existing fire protection system. A minimum 10% safety margin between water available and system demand will be required.
4. If the underground fire line supplies only a fire protection system and there are no fire hydrants down stream from the backflow preventor, then the system FDC (fire department connection) shall be relocated per Fairfield Fire Prevention Std. 87-4, Detail "A".
5. Prior to placing the system back into service the underground fire line shall be flushed. The flush shall be witnessed by the Building and Fire Safety Division. Flushing operations shall be done from a modified FDC through 2-21/2" hoses and shall continue till the water runs clear. A minimum water velocity of 10 ft./sec. will be required.

Per NFPA13 (2010) Chapter 10, Sec.10.10.2.1.1 – "Underground piping, from the water supply to the system riser, and lead-in connecting to system riser shall be completely flushed before connection is made downstream fire protection system piping".

SEP 19 2003



DETAIL "A"
NOT TO SCALE